

1ST AND 2ND ORDER										3RD AND 4TH ORDER									
PROCESSES AND PROPERTIES INDEX																			
CR The utilization of wood and some other construction materials for acids and equipment. S. P. Nasakin and I. F. Chisov. <i>Leningrad. Prom. 4, No. 4, 4-10(1035).</i>— A discussion on the application of Ag linings, cast iron, rubber and ceramic materials in the AcOH industry. Various caps, carried out at 20° with wood treated with solvents obtained in the dry distn. of wood are described. Cf. following abstr. A. A. Buchtingk																			
ASB-3LA METALLURGICAL LITERATURE CLASSIFICATION																			
190000 110 00000										190000 110 00000									
190000 110 00000										190000 110 00000									

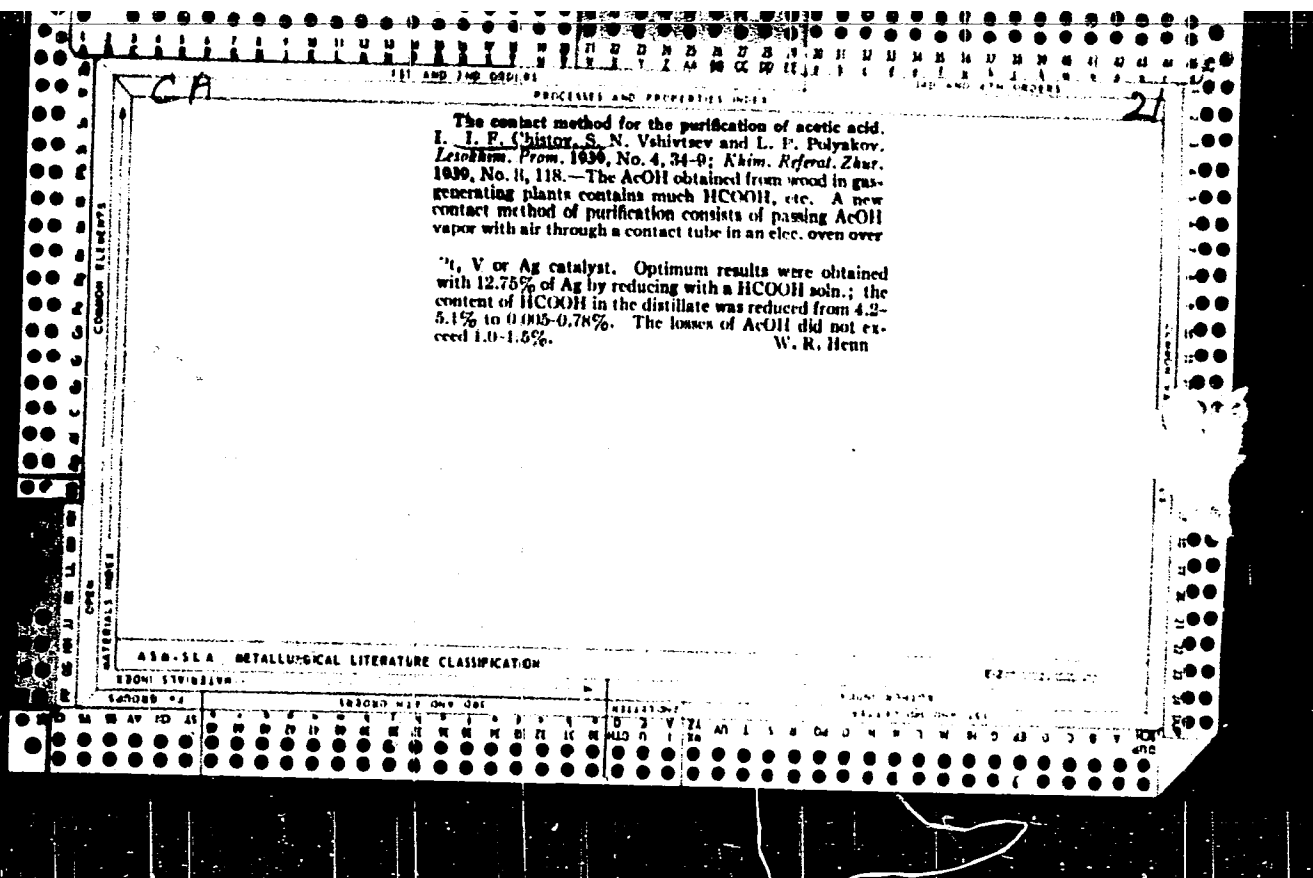
Attempts of reworking calcium acetate powder in the
 Ishevskii chemical plant. I. F. Chislov, S. N. Vshivtzev
 and M. M. Vshivtzeva. *Doklady Akad. Nauk SSSR*, 1964, No. 8, 18-21
 (Russian). — A detailed description of the procedure is fur-
 nished. The $(\text{AcO})_2\text{Ca}$ powder obtained was of an in-
 ferior quality. A. A. Buchtinsk

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PROCESSES AND PROPERTIES INDEX																																																			
M 21 Some Practical Data on the Stability of Materials for Apparatus in the Production of Acetic Acid. S. P. Nosakin and I. F. Chistov (Zhur. Akad. Promish. (J. Chem. Ind.), 1935, 12, 603-607; C. Abt., 1935, 20, 7702).—[In Russian.] Aluminium is very easily corroded by acetic acid; copper is more resistant, but with time it also becomes attacked. The presence of small amounts of salts, especially those of chromium, hastens the corrosion. Parts of the apparatus in which vapours condense are particularly liable to attack. —N. B. V.																																																			
ASB-5LA METALLURGICAL LITERATURE CLASSIFICATION FROM SYNOBIS FROM DONARY																																																			

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100																									
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100																									
1ST AND 2ND GROUPS PROCESSES AND PROPERTIES 22 The causes of the solidification of the reaction mixture in the Linde apparatus. I. F. Chistyov, S. N. Vshivtsev and A. A. Loginskaya. <i>Iskustvennyy Parn</i>, No. 8, 10-22 (1960). The reaction mixt. obtained in the Linde app. in the decompt. of $\text{Ca}(\text{Ac})_2$, being freed at the end of the process from an excess of H_2SO_4, solidifies as the result of hydration of the gypsum formed. The presence of free H_2SO_4 (not less than 7%) in the gypsum prevented or decreased this effect, proportionally to the amt. of acid present. Therefore, in carrying out the process an excess of H_2SO_4 should be used (about 130-5% of the theoretical). A. A. Podgorny																									
3RD GROUP 4TH GROUP 5TH GROUP 6TH GROUP 7TH GROUP 8TH GROUP 9TH GROUP 10TH GROUP 11TH GROUP 12TH GROUP 13TH GROUP 14TH GROUP 15TH GROUP 16TH GROUP 17TH GROUP 18TH GROUP 19TH GROUP 20TH GROUP 21TH GROUP 22TH GROUP 23TH GROUP 24TH GROUP 25TH GROUP 26TH GROUP 27TH GROUP 28TH GROUP 29TH GROUP 30TH GROUP 31TH GROUP 32TH GROUP 33TH GROUP 34TH GROUP 35TH GROUP 36TH GROUP 37TH GROUP 38TH GROUP 39TH GROUP 40TH GROUP 41TH GROUP 42TH GROUP 43TH GROUP 44TH GROUP 45TH GROUP 46TH GROUP 47TH GROUP 48TH GROUP 49TH GROUP 50TH GROUP 51TH GROUP 52TH GROUP 53TH GROUP 54TH GROUP 55TH GROUP 56TH GROUP 57TH GROUP 58TH GROUP 59TH GROUP 60TH GROUP 61TH GROUP 62TH GROUP 63TH GROUP 64TH GROUP 65TH GROUP 66TH GROUP 67TH GROUP 68TH GROUP 69TH GROUP 70TH GROUP 71TH GROUP 72TH GROUP 73TH GROUP 74TH GROUP 75TH GROUP 76TH GROUP 77TH GROUP 78TH GROUP 79TH GROUP 80TH GROUP 81TH GROUP 82TH GROUP 83TH GROUP 84TH GROUP 85TH GROUP 86TH GROUP 87TH GROUP 88TH GROUP 89TH GROUP 90TH GROUP 91TH GROUP 92TH GROUP 93TH GROUP 94TH GROUP 95TH GROUP 96TH GROUP 97TH GROUP 98TH GROUP 99TH GROUP 100TH GROUP																									

24 Thermal decomposition of wood in a current of an
 inc. 29. S. N. Vahitov and I. P. Chistov. *Izvestiya*
 No. 10, 8-11 (1959); *Chem. Zvesti.* 1959, 1, 784-9.
 Preliminary report. A current of CO_2 , heated to 300-
 500°C, was passed through birch shavings. The condensate
 contained about 40% org. acids (calcd. as HOAc). The
 yield of acids amounted to about 18% of the dry wood.
 Birch and pine shavings were used in semitech. expts.
 The app. consisted of a Cu retort charged with 300-400 g.
 of shavings, a gas heater and a condenser. The conden-
 sate contained about 70% org. acids and tar. The large
 amt. of tar present did not sep. on standing in the case of
 birch and spruce, only to a slight extent in the case of
 pine or fir. D. 1.225. Upon diln. of the liquid 1:2, the
 tar (10%) sepd. When the condensate was redistd. up to
 the point of fuming, 55% of distillate was obtained and
 45% pitchy residue. The acidity of the first condensate
 was 20.5% for deciduous woods and as high as 12.43% for
 conifers. The yield remained unchanged as the quantity
 of gas used was varied from 0.8 to 0.4 kg. per kg. of wood.
 When still smaller amts. of gas (0.4 kg. per kg. of wood)
 were used and the walls of the retort heated more strongly
 the yield was reduced considerably. The decompn. of
 the wood shavings in the current of CO_2 came to an end
 very rapidly; distillate passed over only for 1-10 min.
 even when the temp. of the CO_2 was only 300-400°C. On
 the other hand, dry distn. in the same retort continued

30-40 min. Distn. at a higher temp. (450°C) using a small
 amt. of gas (0.4 kg. per kg. of wood) gave the lowest yield,
 a yield which was lower than that obtained by simple dry
 distn.; the yield in acids amounted to 7.1%; for dry
 distn. it was 7.7%. The most favorable expts. gave a
 yield of acid amounting to 12% of the wt. of wood (5 kg.
 CO_2 per kg. wood). Of the total acid obtained, on an av.
 65-75% was HOAc, 15% HCO_2H , and 10-20% HCO_2H .
 In 2 different expts. 4.6 and 6.6% phenols and 2.3 and
 6.8% neutral oils were obtained. Ester yields of 1.6%
 and MeOH yields of 1.6% were found. The yields in ce-
 tones, aldehydes and nonvolatile matter were high. Ac-
 cording to the literature, the ketone and aldehyde yield is
 1-2%, while for dry distn. (220-285°C) the ketone yield
 is 4.6% and the aldehyde, 3.4% (concn. in the condensate
 8.92 and 6.55%, resp.). In an expt. using the current of
 CO_2 , 0.1% ketones and 4.7% aldehydes were obtained.
 In 2 expts. the yields in nonvolatile matter were 12.6 and
 17.1% calcd. on the dry wood. About 10-20% of the vola-
 tile acids and up to 20% of the ketones with 7-8% of the
 aldehydes passed over into the washing flask. W. A. M.



Refining acetic acid by the contact method. I. A. Chistov, S. N. Vahivtsev and L. P. Polyakov. *Lesokhim. Prom.* 1939, No. 7, 24-30; *Khim. Referat. Zhur.* 1939, No. 12, 103-4; cf. *C. A.* 34, 5273'.—The decompn. of formic acid by dehydration with the use of a catalyst (Ag on pumice) was investigated. The optimum temp. of the catalyst was 240° and the optimum velocity of the flow of the acid was from 50 to 100 g./sq. cm. of the cross section of the contact tube per hr. Under these conditions AcOH is practically undecompd.; losses should not exceed 0.3-0.5%. Formic acid is decompd. nearly completely.
W. R. Heun

1ST AND 2ND COLUMNS		PROCESSING AND PROPERTIES INDEX		3RD AND 4TH COLUMNS	
ca		Partlying AcOH. L. P. Chelmon, A. N. Vahivtsev and L. P. Polyakov. Russ. 87, 80, Rept. 30, 1940. Vapors of AcOH are passed through known dehydrogenation catalysts at 300-350° to remove easily oxidizable admixts.		10	
ASAC-11A METALLURGICAL LITERATURE CLASSIFICATION					
1ST AND 2ND COLUMNS		3RD AND 4TH COLUMNS		5TH AND 6TH COLUMNS	
1ST AND 2ND COLUMNS		3RD AND 4TH COLUMNS		5TH AND 6TH COLUMNS	

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
CA 10 The separation of formic acid from its mixtures with acetic acid. P. D. Borbov and I. F. Chistov, <i>Lesokh. Prom. S. No. 2, 7-12(1940); Chem. Zvest. 1940, II, 1040.</i> HCO₂H and AcOH can be sep'd. by boiling their mixt. 2 hrs. with aly. of the paraffin series or acetate solvents with or without a catalyst (H₂SO₄). The sepn. depends upon the different rates of esterification of the 2 acids. The completeness of the sepn. depends upon the HCO₂H content of the mixt. and the amt. and kind of alc. used. Because of its lower rate of reactivity BuOH is less satisfactory than MeOH or EtOH. A disadvantage of the use of aly. is the diln. of the AcOH by the H₂O formed. This is avoided by the use of acetate soln. The best results (84.3% removal of HCO₂H) are obtained when AcOEt is used in an am. equal to about 5 times the HCO₂H present in the mixt. The use of the method as a continuous process is described. M. G. Moore																			
ASB-11A METALLURGICAL LITERATURE CLASSIFICATION																			

1. CHISTOV, I.F.
2. USSR (600)
4. Acetic Acid - Standards
7. Revision of standards for acetic acid and its production, Der. i lesokhim.prom. 2 no. 5, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953. Unclassified.

SUMAROKOV, V.P., kandidat tekhnicheskikh nauk; CHISTOV, I.P.

About the textbook "technology of wood chemistry production."
Der. i lesokhin.prom. 3 no.7:30 J1 '54. (MLRA 7:7)

1. Nauchnoy sotrudnik Tsentral'nogo nauchno-issledovatel'skego
lesokhimicheskogo instituta (for Chistov)
(Wood—Chemistry)

Chistov, I. F.

USSR /Chemical Technology. Chemical Products
and Their Application

I-27

Wood chemistry products. Cellulose and its
manufacture. Paper.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 32656

Author : Chistov I.F., Balashova S.F.

Title : Production of Butyl Acetate from Hydrolysis
Liquor

Orig Pub: Sb.:V Pomoshch' lesokhimiku. M., 1956, 71-84

Abstract: No abstract.

Card 1/1

GHISTOV, I.F.; ZARAKOVSKAYA, A.I.; TARASOVA, A.G.

Production of propionic acid. Gidroliz. 1 lesokhim. prom. 9 no.6:
13-15 '56. (MLRA 9:10)

1. Tsentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut
(for Chistov and Zarakovskaya). 2. Ashinskiy lesokhimicheskiy kombinat
(for Tarasova). (Propionic acid)

CHISTOV, I.F.; SOROKALETOVA, R.I.

Improving the process of esterification of acetic acid with
normal butanol. Gidroliz. i lesokhim. prom. 10 no.7:27-30 '57.
(MIRA 10:12)

1. TSentral'naya nauchno-eksperimental'naya lesokhimicheskaya
laboratoriya Soveta promyslovoy kooperatsii.
(Acetic acid) (Butyl alcohol)

CHISTOV, I.F.; GANZHINA, L.F.

Intensification of the production of ethyl acetate. *Gidroliz. i
lesokhim.prom.* 13 no.1:20-23 '60. (MIRA 13:5)

1. Tsentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy
institut.
(Ethyl acetate)

KORYAKIN, V.I., kand. tekhn. nauk; DOROGUTIN, B.S.; CHISTOV, I.F.;
CHEREPAKOVA, I.V.; DAVYDOVA, M.I.; SOROKOLETOVA, R.I.;
MIKHEYEVA, L.V.; ~~SEITANAGEY~~, V.G.; VOLKOVA, L.N.; SUMAROKOV, V.P.,
kand. tekhn. nauk, red.; KUZNETSOV, G.A., red.; ZAYTSEVA, L.A.,
tekhn. red.

[Technology of the production of wood chemicals; a manual for
foremen, technicians, and engineers] Tekhnologiya proizvod-
stva lesokhimicheskikh produktov; posobie dlia masterov i in-
zhnerno-tekhnicheskikh rabotnikov. Moskva, Gos.izd-vo mest-
noi promyshl. i khidozh. promyslov RSFSR, 1961. 383 p.

(MIRA 15:3)

(Wood—Chemistry)

ALFEROVA, L.A. , kand.tekhn.nauk; CHISTOV, I.F.

Purification of acid waters in the production of synthetic fatty acids. Masl.-zhir. prom. 27 no.6:19-24 Je '61. (MIRA 14:6)

1. TSentral'nyy nauchno-issledovatel'skiy lesotekhnicheskii institut.
(Acids, Fatty)
(Sewage--Purification)

PEFILOV, V.V.; CHISTOV, I.F.; BOGOYAVLENSKAYA, V.N.; Prinimali uchastiye:
POPOV, G.A., rabotnik; LARINA, Ye.M., rabotnitsa; MAKLOVA, A.F.,
rabotnitsa

Utilization of white pigment and sewage waters of the
Dmitriyevsk Wood Chemical Plant. Sbor.trud.TSNILKHI no.14:
60-73 '61. (MIRA 16:4)

1. Dmitriyevskiy lesokhimicheskiy zavod (for Popov, Larina,
Maklova).

(Makeyevka--Wood using industries--By-products)
(Fertilizers)

LEBEDEV, K.K.; CHISTOV, I.F.; RAKITINA, M.A.

Improving the quality of n-butanol produced by synthetic rubber
factories. *Gidroliz. i lesokhim. prom.* 17 no.3:13-15 '64.
(MIRA 1964)

1. Tsentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy
institut.

CHISTOV, I.M.

Operating ring flax-spinning frames. Tekst.prom. 17 no.2:26-28 F
'57. (MLRA 10:2)

1. Nachal'nik pryadil'nogo tsekha fabriki "Serp i molot."
(Flax) (Spinning machinery)

CHISTOV, K. V.

"K voprosu o printsipakh klassifikatsii zhanrov ustnoy parodnoy prozy."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences,
Moscow, 3-10 Aug 64.

PIMENOV, V.V., nauchn. sotr.; TAROYEVA, R.F., nauchn. sotr.;
KEL'SEYEVA, Z.N., nauchn. sotr.; KONKK, U.S., nauchn.
sotr.; VYAYSINEN, T.I., nauchn. sotr.; IL'IN, V.I.,
nauchn. sotr.; CHISTOV, K.V., otv. red.

[Verkhniy Olonets, a settlement of lumbermen ; an
experiment in ethnographical description] Verkhniy
Olonets - poselok lesorubov; opyt etnograficheskogo
opisanija. Moskva, Nauka, 1964. 194 p.

(MIRA 18:1)

1. Akademiya nauk SSSR. Karelo-Finskiy filial, Petro-
zavodsk. Institut istorii, yazyka i literatury.
2. Petrozavodskiy Institut yazyka, literatury i istorii
AN SSSR (for all except Chistov).

CHISTOV, L.B.

Characteristics of the rare-earth mineralization of the weathering surface ores of carbonate deposits in Eastern Siberia. Geol. rud. mestorozh. 7 no.3:75-81 My-Je '65. (MIRA 18:7)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut redkometallicheskoj promyshlennosti, Moskva.

ZUBKOV, L.B.; CHISTOV, L.B.

Certain mineralogical and technological characteristics of ores
in the weathered layer of rare metal deposits. Izv. vys. ucheb.
zav.; tsvet. met. 8 no.5:23-28 '65. (MIRA 18:10)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut
redkometallicheskoj promyshlennosti, laboratoriya veshchestvennogo
sostava rud.

ZUYEV, V.H.; ZUBOV, I.B.; ZUBYNIN, K.B.; UTRINA, T.F.; CHISTOV, I.B.

New data on the occurrence mode of tantalum and niobium in wolframite. Dokl. AN SSSR 166 no.1:194-197 Ja '66.

(MIRA 19:1)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut redkometallicheskey promyshlennosti. Submitted July 27, 1965.

GHISTOV, L.M., kand.ekonom.nauk

Specialization of ship-repairing enterprises is a most important means
of reducing ship repair costs. Trudy LIIVT. Vop. ekon. i org. vod.
transp. no.2:94-103 '59. (MIRA 13:11)

(Ships--Maintenance and repair)

CHISTOV, L.M., kand.ekonomicheskikh nauk

Providing the basis for the economic structure of a ship repairing
cycle. Trudy LIIVT no.26:224-230 '59. (MIRA 14:9)
(Ships--Maintenance and repair)

CHISTOV, L.M., kand.ekonom.nauk

Principles and methods of determining the over-all level of design
and economic advantageousness of a ship's operation. Sudostroenie
28 no.4:49-55 Ap '62. (MIRA 15:4)
(Merchant marine--Cost of operation)

CHISTOV, M. A.

USSR/Human and Animal Physiology - Nervous System.

R-12

Abs Jour : Referat Zhur - Biologiya, No 16, 1957, 71217 D.

Author : Chistov, M.A.

Inst :

Title : The Problem of Origin and Development of Psychology
from the Point of View of I.P. Pavlov's Theories.

Orig Pub : Pub. Avtoref. diss. Kand ped. n. Mosk. gos. ped. int M.
1956.

Abstract : No abstract.

Card 1/1

- 153 -

CHISTOV, N. M.

AUTHORS: Frumer, L. A. , Chistov, N. M.

32-2-51/60

TITLE: A Device for the Determination of Potentials in Electrolytic Coatings (Pribor dlya opredeleniya napryazheniy v elektroliticheskikh pokrytiyakh)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 2, pp. 244 - 245 (USSR)

ABSTRACT: An investigation method was developed , which is based on a scheme already proposed in publications (reference 1). A replaceable spiral which was wound from a steel, brass or copper strip (thickness 0,25 - 0,5 mm) served as cathode. By this means many shortcomings of the hitherto applied cathode consisting of a metal strip were avoided. Because of the small distance of the spiral windings the electrolytic coating is formed uniformly and only at the outside of the spiral. The potential changes of the cathode which are caused by the depositing of the electrolytic substance during electrolysis are recorded by a pointer. From this value the mean

Card 1/2

A Device for the Determination of Potentials in Electrolytic Coatings 32-1-51/60

potential of the coating is calculated according to a formula. If an increase in measurement accuracy is desired, the spiral-constant K may be determined. The error limit of this method of determination is about 10 %. The curves of the dependence of the coating thickness of a chromium coating measured in μ (electrolyte CrO_3 - 300 g/l, H_2SO_4 - 4 g/l) on the mean potential are given. There are 2 figures, and 1 reference, which is Slavic.

AVAILABLE: Library of Congress

1. Cathodes (Electrolytic cell)-Design

Card 2/2

CHISTOV, N.M., inzh.

Modernized KrAZ motortruck. Za rul. 19 no.10:14 0 '61.
(MIRA 14:11)
1. Zamestitel' nachal'nika Spetsial'nogo konstruktorskogo
byuro No.1 Kremenchyyskogo avtozavoda.
(Kremenchuk--Motortrucks)

CHISTOV, N. P.

CHISTOV, N. P.: "An Attempt at Diagnosis and Specific Prophylaxis of Brucellosis of Swine on Fattening Farms." Min Higher Education USSR. Leningrad Veterinary Inst. Leningrad, 1956. (Dissertation for the Degree of Candidate in Veterinary Science)

So: Knizhnaya Letopis', No. 19, 1956.

USSR/Diseases of Farm Animals. Diseases Caused by Bacteria and Fungi R-2

Abs Jour: Ref Zhur - Biol., No 1, 1959, 2802

Author : Trilenko, P. A., ~~Chistov, N. P.~~, Zhabkin, A. S., Podkopyayev, V. M.; Kryachko, L. N.

Inst : Leningrad Scientific Research Veterinary Institute

Title : The Results Obtained when Using SUIS 64 Strain Vaccine for Sanitation of Cattle from Bruce-llosis

Orig Pub: Sb. tr. Leningr. n.-i. vet. in-t, 1957, vyp. 7, 56-66

Abstract: No abstract

Card 1/1

ARKHANGEL'SKIY, I.I., prof.; DARDA, P.N.; CHISTOV, N.P., kand. veter. nauk;
NIKULIN, V.N.; VOROB'YEV, M.M., kand. veter. nauk (Vitebsk, BSSR);
ARKHIPOV, V.V., kand. veter. nauk

Infection focuses. Veterinariia 41 no.1:29-33 Ja '64.

(MIRA 17:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut veterinarnoy sanitarii (for Arkhangel'skiy). 2. Nachal'nik veterinarnogo otryada postoyanno-deystvuyushchey protivoyashchurnoy ekspeditsii Gosudarstvennogo nauchno-kontrol'nogo instituta veterinarnykh preparatov (for Darda). 3. Leningradskiy nauchno-issledovatel'skiy veterinarnyy institut (for Chistov). 3. Pskovskoye oblastnoye upravleniye proizvodstva i zagotovok sel'skokhozyaystvennykh produktov (for Nikulin).

CHISTOV, N. V.		PROCESSING AND PROPERTIES INDEX	
SA		621.313.323 : 621.316.718	
		Spotting equipment for synchronous motors. See Abstr. 1336	
		621.313.333 : 621.3.011.3	
		1202. Inductive reactance of an induction motor, with consideration of saturation. N. V. Chistov. Elektricheskoe, No. 12, 15-18 (Dec., 1958) in Russian.	
		Empirical equations connecting inductive reactance with slip and current I , and allowing for saturation are considered and the methods determining the coefficients m and n entering these relations are dis- cussed. The limiting slip s_1 , determining the load up to which the circle diagrams may be used with adequate practical accuracy is defined. The investiga- tion showed that the accepted hyperbolic relation between reactance and the currents I and I_1 is sufficiently accurate for a wide range of slips; at a slip $s = 0.01$, however, according to the tabulated measurement results, on an individual motor the difference between theoretical and measured value is not less than 60% of the former. The method enables the reactance to be determined over the whole operating range from three measured values of the reactance, partly by circle diagrams and partly by a simple empirical formula. Numerous examples from practice confirm the utility of the method.	
ASP-11A METALLURGICAL LITERATURE CLASSIFICATION		B. F. KRAUS	
E-2			

SHOR, F.I.; CHISTOV, S.F.

Hardenability of steels characterized by high critical rates
of hardening. Metalloved. i term. obr. met. no. 6:42-45 Je '63.
(MIRA 16:6)

(Steel—Hardening)

GHISTOV, S. I., inzh.; MEL'NIKOV, G. I., inzh.

Shortcomings in the design and construction of units for the
production of synthetic fatty acids. Bezop. truda v prom. 6
no.9:14-15 S '62. (MIRA 16:4)

1. Chernikovskiy neftepererabatyvayushchiy zavod, g. Ufa.

(Acids, Fatty)

1. CHISTOV, T. I.
2. USSR (600)
4. Feeding and Feeding Stuffs
7. Using chopped leaves and twigs for livestock feed. Korm. baza 3 no. 12, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

CHISTOV, T. I.

"Feeding Leafy Branches to Cattle," Sots. zhiv., 14, No.2, 1952

1. CHISTOV, T. I.
2. USSR 600
4. Poultry Breeding - Leningrad Province
7. Periods for hatching chicks in Leningrad Province, Trudy NIIP, 22, 1952.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

BRONNIKOV, D. M., CAND. TECH. SCI. and CHISTOV, V. A., Mining Engr.

"Effect of Blasting-hole Deviation on Ore Production" pp. 140 in book Problems in the Exploitation of Mineral Ore Deposits, Moscow, Izd-vo. AN SSSR, 1958, 251pp.

The authors propose and describe methods and techniques for increasing ore output through the control of boreholes by means of electric pulse and gyroscopic equipment.

CHISTOV, V.A., inzh.; GUBKIN, V.I., inzh.

Working raises with deep blast holes. Bezop.truda v prom.
4 no.9:26-27 S '60. (MIRA 13:9)
(Kursk Magnetic Anomaly --Mining engineering)

CHISTOV, V.A., inzh.

Starp creep during underground mining of ferruginous quartzite.
Bezop.truda v prom. 6 no.11:24-25 N '62. (MIRA 1612)

1. Gosudarstvennyy gornorudnyy kombinat Kurskoy magnitnoy' anomalii.
(Mining engineering) (Quartzite)

L 58915-65 EWT(m)/EPA(w)-2/EWA(m)-2 Pt-7 IJP(c) GS

ACCESSION NR: AT5007935

S/0007/64/000/000/0468/0470

AUTHOR: Kul'man, V. G.; Chistov, V. B.; Kapchinskiy, I. M.

TITLE: Designing very long resonators for a linear proton accelerator with drift tubes.

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963. Trudy. Moscow, Atomizdat, 1964, 468-470

TOPIC TAGS: high energy proton accelerator, linear accelerator

ABSTRACT: The resonators of a 100-Mev linear accelerator-injector were designed on the basis of experimental and computed data. (I. M. Kapchinskiy, et al., present conference, p. 462.) The present report discusses this data. The geometrical dimensions for adjusting the sections to the same resonance frequency with an accuracy of the order of $\pm 0.1\%$ were found from empirical formulas based on a model of a section with movable bottom and changeable drift half-tubes. The lengths of the drift tubes were calculated on the basis of the potential distribution in the gaps. Calculations based on the theoretical work of V. G. Andreyev (NT-216-40, 1961, Tekhnicheskii institut AN SSSR, M. 1961) showed that the influence of the difference

Card 1/5

L 58/15-65

ACCESSION NR: AT5007935

between the electrostatic and electromagnetic field distributions on the coefficient of flight time is very small up to the last accelerating gaps. This conclusion is verified also by a comparison of the fields measured in an electrolytic tank and in a high-frequency model of a section. The above-mentioned empirical formulae do not take into consideration the influence of the drift tubes rods (diameter 40 mm) and the bellows (diameter 100 mm, height about 100 mm), which are installed at the base of the rods for mechanical uncoupling with the resonator and with projections inside the resonator. Therefore, after experimental determination of the influence of these design elements on the resonance frequency, the resonators of the resonators were corrected and finally found to equal, respectively, 100.0 and 100.0 MHz. The variation of the resonance frequency of the resonator of the resonator was determined with rods and bellows present. An especially strong variation of the frequency is caused by the bellows in the first part of resonator I for a length of 2-3 m. In order to avoid a large field discontinuity, their influence was additionally compensated for by selecting suitable volumes for the connection pipes of the adjustment hatches, which are situated in this part of the resonator. After preparation of the resonators it was necessary to select the number of plates for field equalization with accuracy of the order of $\pm 3\%$. A small number of plates cannot ensure the required accuracy of the field distribution, but a too large number of plates leads to design complications. With this in mind, a theoretical study

Cont 2/5

L 58915-65

ACCESSION NR: AT5007935

was conducted which was based on the employment of the relation between the number of plates and the number of spatial field harmonics compensating for them. This study permitted a thorough evaluation of the accuracy of the field equalization $\Delta E/E$ as a function of the number of plates. This dependence has the form

$$\left| \frac{\Delta E}{E} \right| < \frac{32}{\pi} \left(\frac{L}{\lambda} \right)^2 P_{\max} \cdot A(m, n),$$

where L/λ -ratio of the resonator length to wavelength, $P_{\max}$ -greatest expected relative variation in the "local" frequency which is caused by errors in manufacture and in disregarded deviations from the form of the resonators, A -coefficient depending upon the number of drift tubes N and the number of adjustment plates m . A numerical evaluation showed that for a field equalization with accuracy of $\pm 3\%$ in resonators I, II, and III the number of plates should be of the order of 70, 45, and 30 respectively. The above derived formula gives an enhanced number of plates. Experiments on the field equalization of resonator models showed that a smaller number of plates could be selected. On the basis of this and considerations of design convenience regarding the plate positions, the total number of plates was reduced to 50, 44, and 34 respectively in resonators I, II, and III. All plates have

Card 3/5

L 58915-65

ACCESSION NR: AT5007935

the same dimensions (0.5x0.5 m), and their movement ensures a variation in resonance frequency of the order of 1%. For the sake of automatic build-up of the resonance frequency uniformly along the resonators, plates 200x400 mm in size were installed in the number 12, 12, and 10 in the resonators I, II, and III, respectively. They move simultaneously and automatically, and can vary the resonance frequency in the limits $\pm 2 \cdot 10^{-5}$. Their number was selected from the consideration that the greatest spatial field harmonic arising during operation should exert practically no influence on the field. For regulation of the field gradient in the limits of 10-20%, at the end of each resonator a plate 0.45x0.45 m in size and with play of ± 1.5 mm was installed. The plates are controlled remotely. In order to verify the correctness of the selection of the main data for the resonators, models of resonators I and III on the approximate scale of 1:4 were built and investigated. The field was rather easily adjusted with an accuracy of 3-4% with the aid of plates in the models. The magnetic field measured close to the cylindrical wall of the resonator diminishes along the length. There is a considerable scatter of the experimentally obtained points, which is clarified by the errors in measurement and in the nonuniformity of the magnetic field. Experiments clarified how the field distribution varied during the operation of the plates for the regulation of the field gradient. Field distortions did not exceed 1% and had the character of a "gradient." The electric field

Card 4/5

1. 58915-65

ACCESSION NR: AT5007935

distribution in the models was measured by the method of perturbation with the aid of small hollow metal spheres 4-5 mm in diameter. Orig. art. has: 3 figures.

ASSOCIATION: Radiotekhnicheskii Institut AN SSSR (Radio Engineering Institute, AN SSSR)

SUBMITTED: 26May64

ENCL: 00

SUB CODE: NP

NO REF SOV: 002

OTHER: 000

Card 5/5

CHISTOV, V.K.

ZHILIN, G.A., inzhener; GRESYUK, M.I., inzhener; MALINOV, M.S., inzhener;
CHISTOV, V.K., inzhener; GALANOVA, M.S., inzhener, redaktor;
~~KHITROV, P.A., tekhnicheskiy redaktor~~

[Passenger train 2-4-2 locomotive] Passazhirskii parovoz 2-4-2.
Pod obshchei red. G.A.Zhilina. Moskva, Gos.transp. zhel-dor. izd-vo,
1956. 362 p. (MLRA 9:8)
(Locomotives)

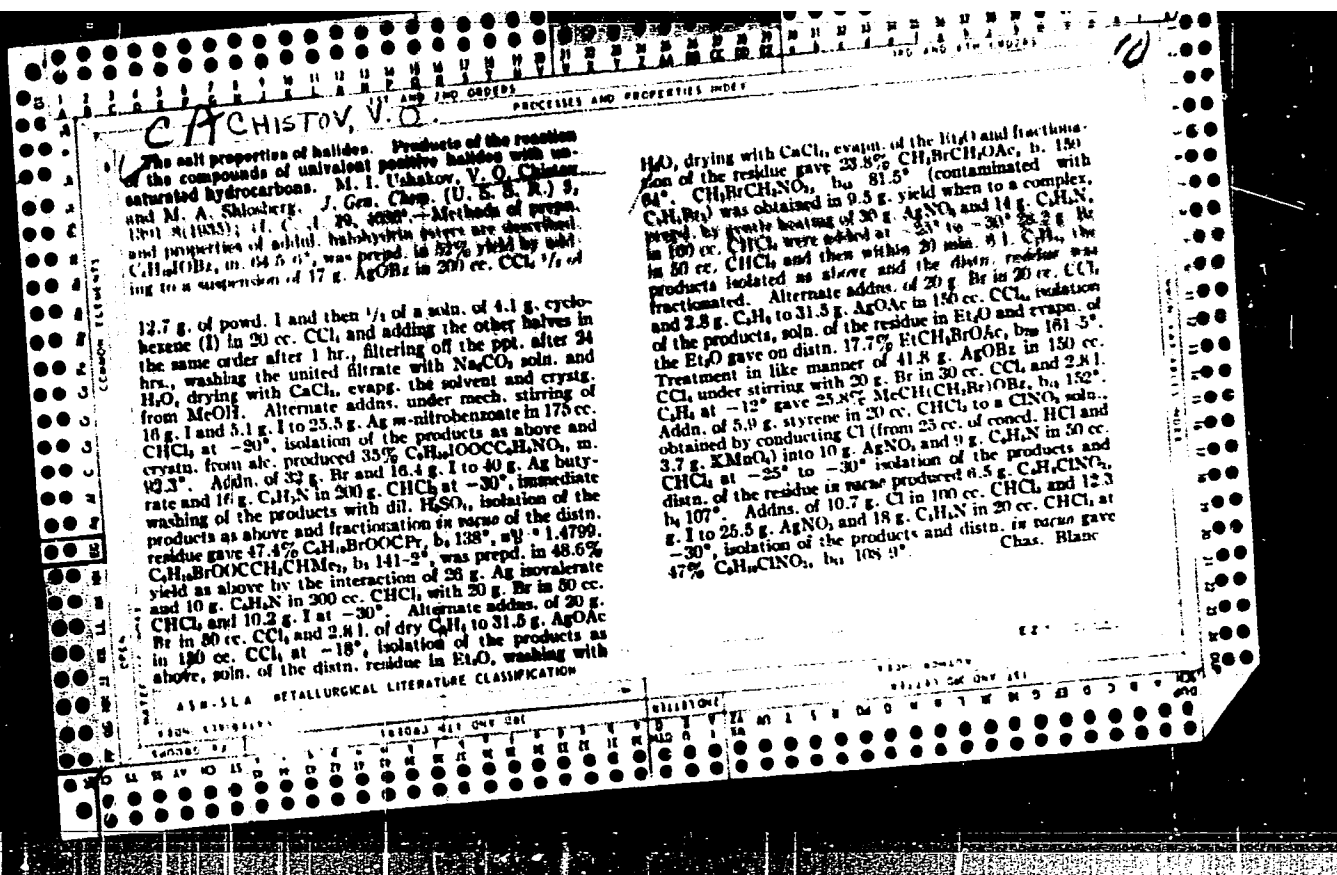
ROSTOVSKIY, K.V.; CHISTOV, V.K., inzh.-konstruktor

Centenary of the Kolonna Diesel Locomotive Plant named after V.V. Kuibyshev. Elek. i tepl.tiaga 7 no.11:24-26 N '63. (MIRA 17:2)

1. Pomoshchnik glavnogo konstruktora Kolomenskogo teplovozostroitel'nogo zavoda im. V.V.Kuibysheva (for Rostovskiy). 2. Kolomenskiy teplovozostroitel'nyy zavod im. V.V.Kuibysheva (for Chistov).

ROSTOVSKIY, K.V.; TSUKANOV, Ye.V.; CHISTOV, V.K.; POLYAKOVA, V.,
red.; SHLYK, M., tekhn.red.

[V.V.Kuibyshev Kolomna Diesel Locomotive Plant, 1863-
1963] Kolomenskii teplovozostroitel'nyy zavod imeni
V.V.Kuibysheva, 1863-1963. Moskva, Mosk. rabochii, 1963.
179 p. (MIRA 17:1)



CA
CHISTOV, V.O.

Chlorine nitrate. M. I. Ushakov and V. O. Chistov.
Dokl. Akad. Nauk SSSR, 1963, 163, 3(1636); J. Gen. Chem.
(U. S. S. R.) 7, 283-4(1937); cf. C. A. 36, 2100. A
soln. of 9 g. AgNO_3 and 8.78 g. $\text{C}_2\text{H}_5\text{N}$ in 50 cc. CHCl_3 was
added drop by drop with stirring to a cold soln. (1-30°C)
of 4 g. of Cl in 70 cc. of CHCl_3 . Without rise in temp.
the AgCl was removed by means of a glass filter and 0.3 g.
 $\text{C}_2\text{H}_5\text{N}$ in 175 cc. petroleum ether added to the filtrate.
The resulting white, cryst. ppt. was filtered, washed 3
times with petroleum ether (100 cc.) and dried 30 min.
in a vacuum over H_2SO_4 ; yield of $\text{ClNO}_2 \cdot 2\text{C}_2\text{H}_5\text{N}$, 6.2 g.;
m. p. 77-8° with decompn. W. C. Fernelius

L 27582-56 EWT(d)/EED-2/EWP(1) Po-4/Pq-4/Pg-4/Pk-4 159(c) 23/04/63

ACCESSION NR: AM5003954

S/0000/64/000/000/0337/0350

35

AUTHOR: Osadchiy, N. I.; Chistyov, V. P.

TITLE: Logic and computer devices of the static type in digital servomechanisms

B+1

SOURCE: Nauchno-tekhnicheskoye obshchestvo priborostroitel'noy promyshlennosti. Nauchno-tekhnicheskoye soveshchaniye. 3d, Moscow, 1962. Vychislitel'naya tekhnika dlya avtomatizatsii proizvodstva (Computer technology for the automation of production); trudy soveshchaniya. Moscow, Izd-vo Mashinostroyeniye, 1964, 177-183.

TOPIC TAGS: pnp transistor, transistor circuit, logic circuit, digital computer element, servomechanism element, logic gate

ABSTRACT: The article describes several automatic control elements based on the use of p-n-p transistors. Advantages claimed for these elements are compactness, high reliability in a temperature range +5--60C and under supply-line fluctuations up to $\pm 20\%$, and instant readiness for operation. The authors developed a basic NOR gate and derived from it, by suitable modification, elements such as AND, OR, NOT, NAND, coincidence, single-digit binary adder, single digit subtractor, adders and subtractors of decimal binary-coded codes, decimal to binary converters,

Card 1/2

L 27885-65

ACCESSION NR: AT5003954

V code into binary code converter, and digital servomechanism system with program control. Original article has: 12 figures, 7 formulas, and 3 tables.

ASSOCIATION: None

SUBMITTED: 01Sep64

ENCL: 00

SUB CODE: DF

NR REF SOV: 003

OTHER: 002

BRAZHENIKOV, N.V., kand.tekhn.nauk; BONDARENKO, V.I., inzh.; OSADCHIY, N.I.,
inzh.; KHRIPKO, Yu.I., inzh.; CHISTOV, V.P., inzh.

Automatic-control system for scale cars. Mekh.i avtom.proizv. 14
no.10;23-26 0 '60. (MIRA 13:10)
(Weighing machines) (Automatic control)

BRAZHENIKOV, N.V.; BONDARENKO, V.I.; CHISTOV, V.P.; GIKTINA, R.F., inzh., red.;
KUZENKOVA, G.M., tekhn.red.

[Automatic control of rail and girder rolling mills at the Nizhniy Tagil Metallurgical Combine] Avtomatizatsiya rel'so-balochnogo stana Nizhne-Tagil'skogo metallurgicheskogo kombinata. Sverdlovsk, TSentr.biuro tekhn.informatsii, 1959. 46 p.

(MIRA 14:4)

1. Russia (1917- R.S.F.S.R.) Sverdlovskiy ekonomicheskii
administrativnyy rayon. Sovet narodnogo khozyaystva.
(Nizhniy Tagil--Rolling mills) (Automatic control)

CHISTOV, V. P.

Труды по автоматизации электротехнических процессов в машиностроении и электротехнике электротехники в промышленности. М., Москва, 1959

Электротехника и автоматизация промышленности. Труды советских специалистов в электротехнике и автоматизации. Труды Института электротехники и автоматизации. М., Москва, 1959. 470 p. 11,000 copies printed.

General Ed.: I. I. Petrov, A. I. Mikhlin, and A. I. Gulyaev. Ed.: I. I. Sed, and L. I. Mikhlin. Tech. Ed.: L. I. Mikhlin, and O. I. Mikhlin.

PREFACE: The collection of reports is intended for the scientific and technical personnel of scientific research institutes, plants and schools of higher education. The book is a collection of reports submitted by scientific workers at the All-Union Conference on the Automation of Industrial Processes in Machine Building and Automatic Electric Drives in Industry held in Moscow, USSR, May 12-16, 1959. The Conference was called by the Academy of Sciences USSR, the USSR State Planning Commission (Gosplan), the USSR Academy of Sciences (Akad. Nauk), the USSR Ministry of Heavy Industry (Min. Tsv. Mashinostroyeniya), the USSR Ministry of Atomic Energy (Min. At. Energii), the USSR Ministry of Defense (Min. Oborony), the USSR Ministry of Internal Affairs (Min. Vnutrennykh Del), the USSR Ministry of Education (Min. Obrazovaniya), the USSR Ministry of Health (Min. Zdravookhraniya), the USSR Ministry of Agriculture (Min. Sel'sk. Khoz-ya), the USSR Ministry of Communications (Min. Svyazi), the USSR Ministry of Transport (Min. Avtomob. Khoz-ya), the USSR Ministry of Construction (Min. Stroitel'stva), the USSR Ministry of Geology (Min. Geologii), the USSR Ministry of Forestry (Min. Lesn. Khoz-ya), the USSR Ministry of Fisheries (Min. Rybn. Khoz-ya), the USSR Ministry of Hunting (Min. Otkh. Khoz-ya), the USSR Ministry of Veterinary Medicine (Min. Vet. Meditsiny), the USSR Ministry of Pulp and Paper Industry (Min. Tseluloz. i Papir. Promyshlennosti), the USSR Ministry of Textile Industry (Min. Tekstil. Promyshlennosti), the USSR Ministry of Light Industry (Min. Legum. Promyshlennosti), the USSR Ministry of Food Industry (Min. Pishch. Promyshlennosti), the USSR Ministry of Chemical Industry (Min. Khim. Promyshlennosti), the USSR Ministry of Metallurgical Industry (Min. Chorn. i Chugun. Promyshlennosti), the USSR Ministry of Non-Ferrous Metallurgy (Min. Nef. i Rуд. Promyshlennosti), the USSR Ministry of Coal Industry (Min. Ugl. Promyshlennosti), the USSR Ministry of Oil Industry (Min. Neft. Promyshlennosti), the USSR Ministry of Gas Industry (Min. Gaz. Promyshlennosti), the USSR Ministry of Water Industry (Min. Voda. Promyshlennosti), the USSR Ministry of Power Industry (Min. Elektr. Promyshlennosti), the USSR Ministry of Transport (Min. Avtomob. Khoz-ya), the USSR Ministry of Communications (Min. Svyazi), the USSR Ministry of Geology (Min. Geologii), the USSR Ministry of Forestry (Min. Lesn. Khoz-ya), the USSR Ministry of Fisheries (Min. Rybn. Khoz-ya), the USSR Ministry of Hunting (Min. Otkh. Khoz-ya), the USSR Ministry of Veterinary Medicine (Min. Vet. Meditsiny), the USSR Ministry of Pulp and Paper Industry (Min. Tseluloz. i Papir. Promyshlennosti), the USSR Ministry of Textile Industry (Min. Tekstil. Promyshlennosti), the USSR Ministry of Light Industry (Min. Legum. Promyshlennosti), the USSR Ministry of Food Industry (Min. Pishch. Promyshlennosti), the USSR Ministry of Chemical Industry (Min. Khim. Promyshlennosti), the USSR Ministry of Metallurgical Industry (Min. Chorn. i Chugun. Promyshlennosti), the USSR Ministry of Non-Ferrous Metallurgy (Min. Nef. i Rуд. Promyshlennosti), the USSR Ministry of Coal Industry (Min. Ugl. Promyshlennosti), the USSR Ministry of Oil Industry (Min. Neft. Promyshlennosti), the USSR Ministry of Gas Industry (Min. Gaz. Promyshlennosti), the USSR Ministry of Water Industry (Min. Voda. Promyshlennosti), the USSR Ministry of Power Industry (Min. Elektr. Promyshlennosti).

THE BOOK IS INTENDED FOR THE PERSONNEL OF RESEARCH INSTITUTES, PLANTS AND SCHOOLS OF HIGHER EDUCATION.

General Ed.: I. I. Petrov, A. I. Mikhlin, and A. I. Gulyaev. Ed.: I. I. Sed, and L. I. Mikhlin. Tech. Ed.: L. I. Mikhlin, and O. I. Mikhlin.

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BRAZHENIKOV, Nikolay Vasil'yevich; BONDARENKO, Vladimir Ivanovich;
CHISTOV, Vilen Petrovich; DRALYUK, B.N., retsenzent;
SMOL'NIKOV, L.P., red.; BUR'KOV, M.M., red. izd-va; KOROL',
V.P., tekhn. red.

[Automatic control of blast furnace and rolling mill processes with use of digital computers] Avtomatizatsiia domennogo i prokatnogo proizvodstva s primeneniem tsifrovyykh schetno-reshaiushchikh ustroystv. Sverdlovsk, Metallurgizdat, 1962.
256 p. (MIRA 15:12)

(Blast furnaces) (Rolling mills)
(Electronic digital computers)

CHISTOV, V.P. (Sverdlovsk)

Conditions for the realization of transistorized threshold circuits.
Avtom. i telem. 26 no.10:1824-1831 0 '65.

(MIRA 18:10)

I 6993-66 EWP(1)/ENT(d) IJP(c) GG/BB

ACC NR: AP5026809

SOURCE CODE: UR/0286/65/000/017/0091/0092

INVENTOR: Osadchiy, N. I.; Chistov, V. P. 44

43
B

ORG: none

TITLE: A combination binary addition-subtraction unit. Class 42, No. 174438

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 17, 1965, 91-92

TOPIC TAGS: binary logic, logic element, computer component, arithmetic unit 16C, 44

ABSTRACT: This Inventor's Certificate introduces a combination binary addition-subtraction unit. In order to carry out subtraction in direct code as well as to simplify the system and make it possible to use elements of the same type, the unit contains two series-connected nonequivalence elements with additional outputs to which a two-input "OR-NOT" gate is connected for forming the borrow or carry to the most significant digit. Each of the nonequivalence elements contains an "OR-NOT" gate at the input as well as two "OR-NOT" gates which have one input connected to the output of the first "OR-NOT" gate. The other two inputs of these "OR-NOT" gates are connected respectively to the inputs of the adder-subtractor (for the first

Card 1/3

UDC: 681.142.07

0901 1725

L 6993-66

ACC NR: AP5026809

nonequivalence element), or to the output of the first nonequivalence element and to the source for the borrow or carry from the least significant digit (for the second nonequivalence element). The nonequivalence elements also each contain an "OR" gate at the output which is connected to the outputs from the second and third "OR-NOT" gates.

SUB CODE: DP,EC/ SUBM DATE: 22Jul64/ ORIG REF: 000/ OTH REF: 000

Card 2/3

L 6993-66

ACC NR: AP5026809

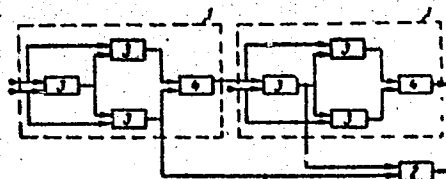


Fig. 1. 1 - nonequivalence elements; 2 - two-input "OR-NOT" gate for forming the borrow or carry; 3 - "OR-NOT" gates; 4 - "OR" gates.

Card 3/3 *ids*

I 8803-66 EWT(1)/EWA(h)

ACC NR: AP5026966

SOURCE CODE: UR/0103/65/026/010/1824/1831

AUTHOR: Chistov, V.P. (Sverdlovsk)

ORG: None

TITLE: Practicability conditions for transistorized threshold circuits

SOURCE: Avtomatika i telemekhanika, v. 26, no. 10, 1965, 1824-1831

TOPIC TAGS: transistorized circuit, logic circuit, circuit design

ABSTRACT: The author examines operating conditions for a threshold element in a discrete logic circuit where the input signals are zeroes or ones which are output voltages from similar threshold circuits. Only those systems where the weight numbers take on positive integral values are considered. This condition makes it possible to replace study of a threshold circuit with various weight numbers g_i by consideration of a circuit where all weight numbers have unit values and the i -th input signal is fed simultaneously to g_i inputs. Static operating conditions of a threshold circuit based on a single transistor are considered and the conditions for practical construction of these circuits are determined for the case where the resistances and supply voltages deviate most unfavorably from the nominal values. Design formulas are given and used for determining practicable parameters of threshold elements designed for combination into multicomponent logic circuits. Orig. art. has: 5 figures and 11 formulas.

SUB CODE: 09 / SUBM DATE: 16Apr65 / ORG REF: 002 / OTH REF: 001

Card 1/1

UDC: 681.142.67:621.302.3

L 06406-067 (d)/EWP(1) IJP(c) BB/GG/GD
 ACC NR: AT6029232 SOURCE CODE: UR/0000/66/000/000/0187/0190

AUTHOR: Klimov, V. V.; Kovalin, Ya. V.; Maslov, A. P.; Chistov, V. P. 74
 B+1

ORG: none

TITLE: A system for data transmission between digital and an analog computer 11/6

SOURCE: Vsesoyuznaya konferentsiya-seminar po teorii i metodam matematicheskogo modelirovaniya, 4th, Kiev, 1964. Vychislitel'naya tekhnika v upravlenii (Computer technology in control engineering); trudy konferentsii. Moscow, Izd-vo Nauka, 1966, 187-190

TOPIC TAGS: analog digital converter, computer input unit, tunnel diode, data transmission, data processing, analog digital computer system, digital analog converter, flip flop circuit

ABSTRACT: The new system consists of a single digital to analog converter, a counter C, fed through gate G from the pulse generator GEN. The unknown voltages $U_1, U_2 \dots U_n$ are applied to the inputs of voltage comparators COM 1, COM 2, ..., COM n. A signal from the shift register REG sets the flip flop RR3, which in turn opens the gate G. The pulses flow into counter C, are counted, and fed into the digital computer in binary form. Simultaneously, an analog reference voltage proportional to the number of pulses is generated in the digital to analog converter. This staircase voltage is introduced into the comparators COM 1, through COM n. At the moment that one of the un-

Card 1/2

L 06406-67

ACC NR: AT6029232

known voltages becomes equal to the instantaneous value of the reference voltage, a signal from the appropriate comparator triggers one of the FF 1 flip flops. The output pulse from FF 1 sets the corresponding FF 2 flip flop, resets the FF 3, and enters the shift register REG. FF 3 turns off the gate G, thus fixing the instantaneous counter contents. FF 2 generates a pulse which identifies the counter contents with the corresponding input signal ($A_1, A_2 \dots A_n$). Timing pulses from the digital computer are fed into input IN 1 of the shift register and used to advance its contents. As soon as the counter information is transferred into the computer, gate G is opened through FF 3 by the shift-register REG and the process continues until the next voltage level coincidence occurs in one of the input comparators. When the counter is completely filled, an impulse from it resets all flip flops FF 1 into their initial state. Tunnel diodes are used in the voltage comparators COM 1 through COM n , as coincidence sensing elements. The comparator circuit and an explanation of its operation are included. The circuit is conventional. Orig. art. has: 5 figures, 4 formulas.

SUB CODE: 09/

SUBM DATE: 12Feb66/

ORIG REF: 003/

OTH REF: 001

Card 2/2 *tdl*

CHISTOV, V. S.

U.S.R.?

✓ Chemical composition of floral and honeydew honeys.
V. Chistov and N. Silitskiy. *Fchevrodisro* 29, No. 10,
77-10, 1959. *Bis. Abstr.* 27, 750 (1959). Comparative
analysis of the ash of floral and honeydew honeys are
given, which show that the latter contain 8.1 times more
mineral matter than the former. This is due mostly to the
greater content of K, P, S, and Cl (12.82, 7.75, 15.96, and
5.30 times more, resp.) in honeydew honeys. There is a
small amt. of amino acids present in both types of honey.
A. M. M.

CRIS 104, V. 8
S.

Acid and buffer characteristics of honeys. V. C. Chetov.
(Inst. Beekeeping, Moscow). *Pchelovedenie* 1954, No. 2, p. 28-32; *Bee World* 36, 173 (1955).—Confirmation was obtained that honeys from different sources have different pH values, while honey from the same plant has the same pH value from year to year. As a rule flower honeys have lower pH values than do honeydew honeys, although the latter possess the greater total acidity. The pH value (in a 1:1 diln. with H₂O) was determined potentiometrically with a quinhydrone electrode. The pH ranges and average of 25 flower and 34 honeydew honeys were 3.74-5.85, 3.49 and 4.25-5.01, 4.61, resp. The buffer capacity depended upon the source and was 3.3 times as great for honeydew as for flower honeys. It is suggested that these differences may provide a method of determining the source of honeys and the proportion of honeydew in honey therein. P. B. Wells.

CHEN' YUAN'-PU [Ch'on Yuan-F'u]; CHISTOV, V.S.

Device for testing the mechanical properties of warp threads.
Tekst.prom. 19 no.4:43-44 Ap '59. (MIRA 12:6)
(Yarn--Testing)

POPOV, N.N.; BATURIN, N.A.; CHISTOV, V.V., red.; SHELENSKAYA, V., red.;
LAGUTINA, I.M., tekhn.red.

[German Democratic Republic; its economy and foreign commerce]
Germanikaia Demokraticheskaia Respublika; ekonomika i vneshniaia
torgovlia. Moskva, Vneshtorgisdat, 1959. 246 p. (MIRA 13:2)
(Germany, East--Economic conditions)
(Germany, East--Commerce)

SHERSHNEV, Yevgeniy Sergeyevich; CHISTOV, V.V., red.; KAKHOVSKAYA, O.G.,
red.izd-va; GURKIN, V., tekhn.red.

[Economy and foreign trade of the Federal Republic of Germany]
Federativnaya Respublika Germanii; ekonomika i vneshnyaya
torgovlya. Moskva, Vneshtorgizdat, 1960. 183 p. (MIRA 14:2)

(Germany, West--Economic conditions)

GURVITS, S., kand.biol.nauk; ~~CHISTOV, Ye.~~, inzh.

Determining radioactive contamination of air. Okhr.truda i
sots.strakh. no.10:65-66 0 '59. (MIRA 13:2)
(Radioactivity--Measurement)

24167

S/032/61/007/005/017/017
B110/B206

21.7200

AUTHORS: Gurvits, S. S. and Chistov, Ye. D.

TITLE: New operating instructions for radioactive substances and
ionizing radiation sources

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 5, 1961, 626-628

TEXT: In 1960 the new "Sanitary operating instructions for radioactive substances and ionizing radiation sources" no 333-60 were approved. They take into account the determination of the degree of danger: form of the substance (open or closed), physical state, radiation form and -energy, activity, period, relative radioactive toxicity, amount of substance and type of the technological process. Open substances are potential sources of internal irradiation; they are divided into four groups (Table). The laboratories are divided into those using > 100 curies, 10-100 curies and < 10 curies annually. The maximum 3-year work permit is to be confirmed by sanitary certificates. This is unnecessary if control- and measuring devices have closed radiation sources. The staff (especially below the age of 18) is examined systematically, and should be informed of danger-

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New operating instructions for radioactive... B110/B206

free working methods. Overcharging of the devices should be done by organizations holding a licence of the local sanitary authorities. In the case of closed radiation sources, forced draught ventilation is only required for > 10 g eq-Ra. Stationary installations radiating to all sides should be placed in special rooms. For portable devices (γ -defectoscope), measures must be taken to reduce radiation to the permissible value. Series production and installation of control- and measuring devices equipped with closed radiation sources only are authorized if the assembly- and operating instructions by the Gosudarstvennaya sanitarnaya inspektsiya SSSR (State Sanitary Inspection of the USSR) and the Komitet po ispol'zovaniyu atomnoy energii (Committee of Atomic Energy Utilization) are maintained. Danger zones must be marked by warning signs visible from at least 3 m distance. The radiation dose on the surface of the device must be ≤ 10 mr/hr, at a distance of 1 m, 0.3 mr/hr. The local sanitary authority must be notified within 10 days of the purchase of such devices. Individual protection by assemblies for operating and maintenance staff must be provided for ~ 1 hr even if no dangerous gases are in the air, but the aerosol concentration is ≤ 1000 times of the permissible concentration. Deactivation is carried through in special laundries. Radiometric and

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New operating instructions for radioactive...

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dosimetric controls for prevention of excessive irradiation must be made by specially trained persons. An individual card index must show the doses of the irradiated persons. The admissible maximum was determined more strictly. According to recommendations by the International Committee for Radiation Protection, the following differentiations are made: occupational irradiation of operating personnel, irradiation of personnel working in intermediate rooms, irradiation of the population of all age groups living in the vicinity of the danger zone. The old instructions permitted 0.05 r per day = 300 mrem per 6 day week, the new one permits only 100 mrem per week = 5 rem annually for occupational irradiation. The total dose of occupational irradiation should not exceed 60 rem up to 30 years of age. Correspondingly lower values were laid down for the maximum concentration of radioactive isotopes in the water of open wells and springs, the air in work rooms, danger zones, and settlements. It was specified for 130 different isotopes. The new instructions contain, for the first time, deactivation methods for laboratory equipment. This proves that the USSR strictly maintains the conventions and recommendations by the 44th Meeting of the International Working Conference in Geneva. The following participated in elaborating

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S/032/61/027/005/017/017
B110/B206

New operating instructions for radioactive...

the instructions: A. S. Arkhipov, N. I. Volkova, S. M. Gorodinskiy, V. P. Granil'shchikov, N. G. Gusev, S. A. Klyugin, L. N. Lazareva, A. A. Letavet, N. I. Leshchinskiy, P. I. Moyseytsev, A. N. Morey, G. M. Parkhomenko, V. I. Sinitsin, N. Yu. Tarasenko, A. Shtan' and other collaborators of the GK SM SSSR po IAE and the Minzdrav SSSR (Ministry of Health USSR). There is 1 table.

ASSOCIATION: Radiologicheskaya laboratoriya Vsesoyuznogo Tsentral'nogo nauchno-issledovatel'skogo instituta okhrany truda VTsSPS
(Radiologic Laboratory of the All-Union Central Scientific Research Institute for Labor Protection VTsSPS)

Table: Classification of radioactive substances. (activity at the work place in millicurie). Legend: 1) group and characteristic of the substance; 2) examples of radioactive isotopes; 3) maximum permissible concentration in the air in curie/m³; 4) class; A) especially high toxicity; B) high toxicity; B) medium toxicity; P) lower toxicity.

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New operating instructions for radioactive...

2/1167
S/032/61/027/005/017/017
B110/B206

Группа и характеристика вещества (1)	Примеры радионуклидов (2)	Предельно-допустимая концентрация в воздухе кюри/м ³ (3)	I класс (4)	II класс (5)	III класс (6)
А—особо высокая токсичность	Sr ⁹⁰ ; Y ⁹⁰ ; Po ²¹⁰ ; U ²³³	<10 ⁻¹³	>10	0,01—10	0,0001—0,01
Б—высокая токсичность	Ca ⁴⁵ ; Co ⁶⁰ ; I ¹³¹	10 ⁻¹³ —10 ⁻¹¹	>100	0,1—100	0,001—0,1
В—средняя токсичность	Na ²⁴ ; Fe ⁵⁹ ; I ¹³²	10 ⁻¹¹ —10 ⁻⁹	>1000	1—1000	0,01—1
Г—наименьшая токсичность	H ³ ; C ¹⁴ ; Cr ⁵¹	>10 ⁻⁹	>10000	10—10000	0,1—10,0

Card 5/5

21.5151

29422
S/081/61/000/017/064/166
B110/B138

AUTHORS: Breger, A. Kh., Gurvits, S. S., Pozdnyakova, L. A.,
Chistov, Ye. D.

TITLE: Some protection problems in the use of radiation chemical
apparatus

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 17, 1961, 306, abstract
174362 (Sb. nauchn. rabot in-tov okhrany truda VTsSPS,
no. 4, 1960, 12-23)

TEXT: When studying the range of dose rates in the labyrinth protection
of two radiation chemical research units, with strong Co⁶⁰ γ radiation
sources of 21,000 and 16,000 g-equiv Ra, the authors found that, from
the viewpoint of radiation safety, labyrinth shielding of both units
reduces the dose rate down to tolerance level. The dose rate of γ radia-
tion in labyrinths of the units is almost wholly due to scattered radia-
tion. For a more rational design of the labyrinth it is recommended
that the depth of the first concrete projection should be reduced. A
rough determination of the energy spectrum of the γ radiation in the

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Some protection problems in the use...

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B110/B138

labyrinth is made from the absorption in lead filters. The scattered radiation is found to consist mainly (80 %) of a soft component with an energy 0.1-0.2 Mev. In the second and the following windings of the labyrinth there is only a slight change in the hardness of scattered radiation. An equation is suggested by means of which the range of dose rates in labyrinths can be calculated with a sufficient accuracy for practical purposes. [Abstracter's note: Complete translation.]

X

Card 2/2

27.2400

2220

31557
S/081/61/000/022/037/076
B110/B101

AUTHORS: Breger, A. Kh., Gurvits, S. S., Pozdnyakova, L. A., Chistov,
Ye. D.

TITLE: Experimental study of protection when using radiation-chemical
units with powerful γ -radiation sources

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1961, 270, abstract
221308 (Sb. "Radioakt. izotopy i yadern. izlucheniya v nar.
kh-ve SSSR. v. I". M. Gostoptekhizdat, 1961, 241 - 243)

TEXT: On the basis of experimental results obtained in tests of the
K-20000 (K-20,000) and H-16000 (H-16,000) units the field distribution of
dose rates in the mazes of these units was given. The energy of scattered
 γ -radiation was estimated by the method of radiation absorption by lead
filters. 80% of scattered radiation was found to consist of the soft
component with an energy of 0.1 - 0.2 Mev. In the radiation maze, the
energy of scattered radiation changes but slightly after the first turn.
[Abstracter's note: complete translation.]

Card 1/1

L 1298-66 EWT(m)/EWP(t)/EWP(b) LJP(c) JD/HW
ACCESSION NR: AR5014384

UR/0058/65/000/004/V010/V011

SOURCE: Ref. zh. Fizika, Abs. 4V75

AUTHOR: Chistov, Ye. D.; Larichev, A. V.

TITLE: Investigation of reflected gamma-ray spectra in the labyrinths of large cobalt installations

CITED SOURCE: Nauchn. raboty in-tov okhrany truda VTsSPS, vyp. 3(29), 1964, 49-66

TOPIC TAGS: radiation shielding, cobalt, gamma radiation, gamma spectrum

TRANSLATION: The spectra of reflected γ -radiation were studied in the concrete labyrinths of large cobalt installations using a scintillation γ -spectrometer made up of standard components with a thallium-activated sodium iodide crystal 70x50 mm in size and an FEU-43 photomultiplier. It is shown that all spectral distributions have a maximum in the 70-90 kev energy region. The position of this region is shifted toward the lower energy side as the distance to the emitter is increased. Dosage spectra with average energies in the 90-150 kev range are plotted from the measured γ -ray spectra. A method is proposed and discussed for designing labyrinth

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ACCESSION NR: AR5014384

shields as structural elements of tanks and other shielding devices. It is pointed out that an average energy of 100 kev may be used in all points of the labyrinth in these calculations with sufficient accuracy for all practical purposes. When the safety factor is taken as equal to 2, and empirical coefficients m_i are used to account for scattering and the geometry of the labyrinth, the calculated values at all points are overestimated when compared with experimental data. A. Petushkov.

SUB CODE: NP

ENCL: 00

mlr
Card 2/2

KARMAZINA, Lena Nikolayevna; CHISTOVA, Emiliya Aleksandrevna;
DITKIN, V.A., prof., etv. red.; YAKOVKIN, M.V., red.;
ZELENKOVA, Ye.V., tekhn.red.

[Tables of Bessel's functions for an imaginary argument and
their integrals] Tablitsy funktsii Besselia et naimeno argu-
menta i integralov et nikh. Moskva, Izd-vo Akad.nauk SSSR,
1958. 328 p. (Matematicheskie tablitsy) (MIRA 11:12)
(Bessel's functions)

CHISTOVA, E.A.; ALIKHASHKIN, Ya.I., kand. viz.-mat.nauk, otv. red.;
ORLOVA, I.A., red.; KORKINA, A.I., tekhn. red.

[Standard programs for the "Strela-3" computer] Standartnye
programmy dlia mashiny "Strela-3." Moskva. No.3. [Calculation
of Bessel's functions] Vychislenie funktsii Besselia. 1961. 39 p.
(MIRA 15:1)

1. Akademiya nauk SSSR. Vychislitel'nyy tsentr.
(Bessel's functions)

KARPOV, K.A.; CHISTOVA, E.A.; DITKIN, V.A., prof., otv. red.

[Weber functions] Tablitsy funktsii Vebera. Moskva, Vy-
chislitel'nyi tsentr AN SSSR. Vol.2. 1964. 340 p.
(MIRA 17:7)

21(7)

AUTHORS:

Chistova, E. A., Drozdov, S. I.

SOV/89-6-2-7/28

TITLE:

Neutron Scattering in Para- and Orthohydrogen (Rasseyaniye neytronov v para-i ortovodorode)

PERIODICAL:

Atomnaya energiya, 1959, Vol 6, Nr 2, pp 152 - 161 (USSR)

ABSTRACT:

At energies exceeding considerably the bond energy of moderator atoms the neutron moderation can be represented very well by the laws of the elastic collision of 2 balls. As soon as the neutron energy has more or less attained the amount of the moderator atom bond energy, the latter begins to play an important part during the moderation process, wherein energy and temperature dependence, respectively, is already observed. The formulae of the total cross section, the average asymmetry of the scattering and the medium energy loss with a collision in para- and orthohydrogen in dependence on the neutron energy and moderator temperature are now theoretically deduced. The formulae derived were numerically evaluated by E. A. Chistova with the electric computer of the AS USSR Calculation Office and the numerical results were given in a graph. The calculations include: The cross sections

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Neutron Scattering in Para- and Orthohydrogen

SOV/89-6-2-7/28

$\sigma_{1,1}(E)$, $\sigma_1(E)$, $\sigma(E, \theta)$

the scattering asymmetry $\mu_{1,1}(E)$, $\mu_1(E)$, $\mu(E, \theta)$

the relative energy loss in one fission $\frac{\Delta E}{E}(E, \theta)$, each

in dependence on the neutron energy E and in the laboratory coordinate system under the following initial conditions:

$0.01 \text{ ev} < E < 1 \text{ ev}$; $\theta = 0$; 0.015; 0.020 and 0.025 ev.

With these energy and temperature values the states characterized by $l' \leq 5$ and $l \leq 7$ were assumed as initial and final states of the H_2 molecule. The calculations were

carried out for the most part without considering the nuclear oscillation within the molecule, which is useful only within the range of $E \leq 0.1 \text{ ev}$. Within the range of $0.1 \text{ ev} < E < 1 \text{ ev}$ the zero oscillations were taken into account in the calculation of $\frac{\Delta E}{E}(E, \theta)$. There are 5 figures and 7 references, 2

of which are Soviet.

September 4, 1958

SUBMITTED:
Card 2/2

TULUYEVSKIY, Yu.N.; DOBROKHOTOV, A.A.; AKHAMANAYEV, S.I.; CHISTOVA, E.P.

Combustion control in open-hearth furnaces by the oxygen content.
Izv.vys. ucheb. zav.; chern. met. no.3:184-191 '61. (MIRA 14:3)

1. Chelyabinskiy nauchno-issledovatel'skiy institut metallurgii.
(Open-hearth furnances—Combustion)
(Oxygen—Industrial applications)

CHISTOVA, G.A.

OSTROVSKIY, Ya.G.; AUERMAN, L.Ya.; ZHURAVLEV, N.N.; TETEREVYATNIKOVA, I.P.;

CHISTOVA, G.A.

Relationship between the final rising period and the
electroconductivity of the dough. Trudy MTIPP 4:58-61
'56.

(MLBA 9:10)

(Dough)

L 3150-66 EWT(1)/T/EEB(8)-3 IJP(c)

ACCESSION NR: AF5016054

UR/0368/65/002/005/0475/0478

771.533

AUTHORS: Kalinkina, T. A.; Oshurkova, A. N.; Pankova, A. A.;
Uvarova, V. M.; Chistova, G. I.; Shpol'skiy, M. R.

TITLE: NIKFI photographic materials for spectral analysis in the
ultraviolet region of the spectrum

SOURCE: Zhurnal prikladnoy spektroskopii, v. 2, no. 5, 1965, 475-478

TOPIC TAGS: uv spectroscopy, uv photography, photographic material,
photographic emulsion

ABSTRACT: The authors describe briefly the assortment of photographic
materials developed for the registration of the ultraviolet region
of the spectrum. The spectral sensitivity of the materials and the
dependence of the contrast of the emulsions on the wavelength of the
applied radiation is reported. It is shown that emulsions having a
high content of silver halide exhibit an increase in the absolute
sensitivity of the layers in the ultraviolet region of the spectrum

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L 3150-66

ACCESSION NR: AP5016054

3

compared with the visible region. The deviation from the reciprocity law for prolonged exposures is determined for some types of emulsions. The resolution of the material is claimed to be sufficiently high even in the case of the coarse-grain emulsions UFSH-0. A table summarizing the characteristics and some of the characteristic curves are included. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut (All-Union Scientific-Research Institute of Motion Picture Photography)

SUBMITTED: 00

ENCL: 00

SUB CODE: ES, OF

NR REF SOV: 004

OTHER: 000

Card

2/2

CHISTOVA, L.

Long-distance communication. Den.1 kred. 20 no.5:36-40 My '62.
(MIRA 15:5)

(Moscow--Banks and banking--Accounting)
(Machine accounting) (Telegraph--Perforating system)

CHISTOVA, L.P., uenitel'nitsa

Students' work in a school greenhouse. Biol. v shkole no.2; 58-62 Mr-Apr
'61. (MIRA 14:3)

1. Shkola No.148 g. Moskvyy.
(Greenhouses) (Gardening—Study and teaching)

REL'KEVICH, P.I.; CHISTOVA, L.R.

Ion-exchanging properties of peat. Exchange of cations in peat.
Report no. 1. Trudy Inst. torf. AN BSSR 6:130-141 '57. (MIRA 11:7)
(Peat) (Ion exchange)

HEL'KEVICH, P.I.; CHISTOVA, L.R.

Ion-exchanging properties of peat. Applicability of ion-exchange adsorption equations to a description of cation-exchange phenomena in peat. Report no.2. Trudy Inst. torf. AN BSSR 6:142-149 '57. (MIRA 11:7)

(Peat) (Ion exchange)

HEL'KEVICH, P.I.; CHISTOVA, L.R.

Ion-exchanging properties of peat. Exchange of cations in
sulfonated peat. Report no.3. Trudy Inst. torf. AN BSSR 6:
150-158 '57. (MIRA 11:7)
(Peat) (Ion exchange)

REL'KEVICH, P.I.; CHISTOVA, L.R.

Ion-exchanging properties of peat. Applicability of ion-exchange adsorption equations to the exchange of cations in sulfonated peat. Trudy Inst. torf. AN BSSR 6:159-165 '57.

(MIRA 11:7)

(Peat) (Ion exchange)

4.

PIDOPLICHKO, A.P.; FIGULEVSKAYA, L.V.; KONOYKO, M.A.; CHISTOVA, L.R.

Comparative estimate of the natural resources of raw bituminous
peat. Trudy Inst. torfa AN BSSR 7:73-89 '59. (MIRA 14:1)
(Peat)

BEL'KEVICH, P.I.; CHISTOVA, L.R.

Ion exchange properties of peat. Report No. 5: Quantitative
absorption of cations by sulfonated peat. Trudy Inst. torfa
AN BSSR 7:148-151 '59. (MIRA 14:1)
(Peat) (Ion exchange)